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ВТ
UNCLAS //N16480//
SUBJ: IMPROVEMENTS IN THE NSF VISCOUS OIL PUMPING CAPABILITY
1. WE HAVE JUST COMPLETED MAJOR IMPROVEMENTS TO OUR VISCOUS
OTT
PUMPING CAPABILITY. THIS MESSAGE DOCUMENTS THE IMPROVEMENTS
MADE AND
THE INCREASED PERFORMANCE NOW AVAILABLE TO THE COAST GUARD.
2. DISCUSSION:
A. FROM 1994 TO PRESENT, THE U.S. COAST GUARD NATIONAL
STRIKE FORCE
(NSF) RESPONDED TO THREE MAJOR OIL SPILLS INVOLVING GROUNDED
FOREIGN
FREIGHT VESSELS WHICH REQUIRED THE REMOVAL OF HIGHLY VISCOUS
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MEANS OF VARIOUS LIGHTERING EQUIPMENT AND SYSTEMS. IN THE

FALL OF

1999, AN INFORMAL WORKGROUP SPONSORED BY COMMANDANT (G-SEC-2C).

CONSISTING OF U.S. COAST GUARD, U.S. NAVY SUPERVISOR OF SALVAGE

(NAVSUPSALV), AND INDUSTRY OIL SPILL RESPONSE AND SALVAGE REPRESENTATIVES FROM AROUND THE WORLD WAS FORMED. THIS GROUP CAME

TOGETHER TO RESOLVE VISCOUS OIL PUMPING PROBLEMS WHICH OCCURRED DURING

THE TANK BARGE MORRIS BERMAN (1994), FREIGHT VESSEL KUROSHIMA (1998)

AND FREIGHT VESSEL NEW CARISSA (1998) GROUNDINGS.

FROM SEP 1999 TO OCT 2000, THREE WORKSHOPS AND ONE EXERCISE IN PRUDHOE

BAY WERE HELD TO SHARE INFO ON HOW BEST TO LIGHTER VISCOUS OIL AND TO

PROVIDE REAL WORLD TRAINING AND EXPERIENCE.

3. RESULTING CAPABILITY IMPROVEMENTS:

THE WORKSHOPS AND EXERCISE LEAD TO THE DEVELOPMENT OF THE VISCOUS OIL

PUMPING SYSTEM (VOPS), AN ADD-ON TO THE EXISTING NSF LARGE PUMP LOAD.

THE ANNULAR WATER INJECTION (AWI) FLANGE IS THE CATALYST TO MAKING

VOPS WORK. THIS FLANGE INTRODUCES A WATER SLEEVE BETWEEN THE PRODUCT

BEING PUMPED AND THE INNER WALL OF THE HOSE. THE SLEEVE OF WATER

AIDES IN THE MOVEMENT OF THE OIL THROUGH THE HOSES AS WELL AS REDUCING

THE FRICTION AND THEREBY LOWERING THE OPERATING PRESSURE OF THE PUMP.

DECREASED PRESSURES ALLOWS FOR PUMPING HIGHER VISCOSITY OILS WITHOUT

DAMAGING PUMPS AS WELL AS ALLOWING THESES OILS TO BE PUMPED GREATER

DISTANCES.

- 4. AVAILABILITY:
- A. ALL THREE USCG NSF STRIKE TEAMS HAVE RECEIVED THEIR UPGRADED

SYSTEMS. NAVSEA SUPSALV HAS ALSO BUILT A SIMILAR UPGRADED SYSTEM AND

HAS IT ON STANDBY FOR RESPONSE.

B. VOPS SUPPORT CAN BE PROVIDED BY ACCESSING THE STRIKE TEAMS THROUGH

NORMAL REQUESTING PROCEDURES.

- 5. FUTURE PLANS:
- A. CONTINUE GOV'T/INDUSTRY PARTNERSHIP INITIATIVE
- B. CONTINUE SYSTEM TESTING WITH INCREASED OIL VISCOSITIES
- C. USE SYSTEM DURING AN ACTUAL RESPONSE TO INCREASE PUMPING CAPABILITIES
- 6. FOR MORE INFORMATION ON VOPS, VISIT THE NSF WEBSITE: <a href="http://www.uscg.mil/ho/nsfcc/nsfweb/index.html">http://www.uscg.mil/ho/nsfcc/nsfweb/index.html</a> OR THE COMDT (G-SEC2C)

WEBSITE AT <a href="http://www.uscg.mil/systems/gse2/products.htm">http://www.uscg.mil/systems/gse2/products.htm</a> OR CONTACT LT PETER NOURSE, COMDT(G-SEC-2C) AT 202-267-1094. OR LCDR DELANO ADAMS, NSFCC OPS AT 252-331-6000. BT NNNN